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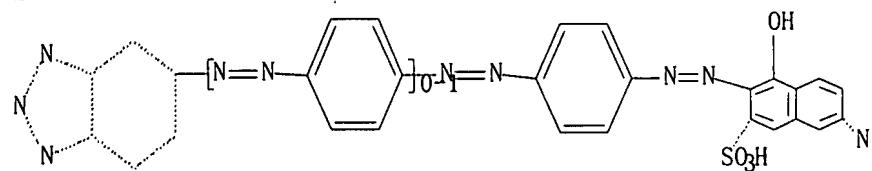
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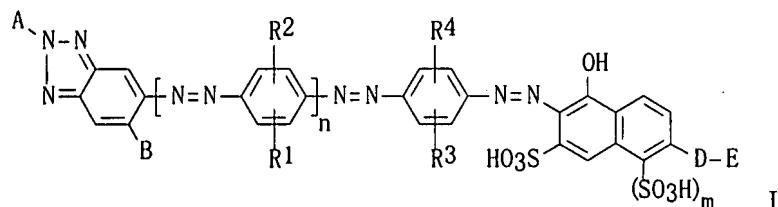
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L4 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2007 ACS on STN
 AN 2004:905838 CAPLUS
 DN 141:381068
 TI Azo compounds and their salts useful for polarizers with good durability
 and reduced color leakage in visible light region
 IN Sadamitsu, Yuichi; Kawabe, Kazuyuki
 PA Nippon Kayaku Kabushiki Kaisha, Japan; Polatechno Co., Ltd.
 SO PCT Int. Appl., 35 pp.
 CODEN: PIXXD2
 DT Patent
 LA Japanese
 FAN. CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004092282	A1	20041028	WO 2004-JP5364	20040415
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
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	R: AT, BE, CH, DE, DK, ES, FR, IE, SI, LT, LV, FI, RO, MK			GB, GR, IT, LI, LU, NL, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR	
	CN 1774480	A	20060517	CN 2004-80010078	20040415
	US 2007079740	A1	20070412	US 2005-552184	20051006
PRAI	JP 2003-111419	A	20030416		
	WO 2004-JP5364	W	20040415		
OS	MARPAT 141:381068				
GI					



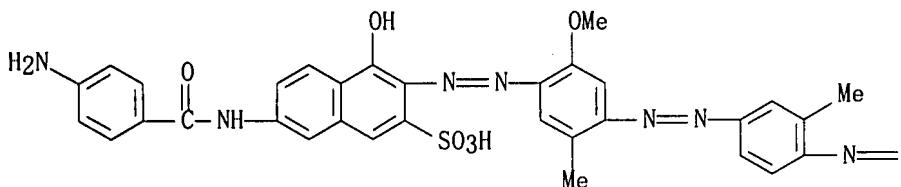
AB The present invention relates to (i) azo compds. I and (ii) their salts or
 their copper complex compds., wherein A = Ph or naphthyl having 1-3
 substituents such as sulfo, amino, lower alkyl, and lower alkoxy; B = H,
 sulfo, lower alkyl, or lower alkoxy; R1, R2, R3, R4 = independently H,
 halogeno, lower alkyl, or lower alkoxy; D = NHCO, N:N, or NH; E = H or Ph
 having 1-3 substituents such as lower alkyl, hydroxy, and amino; n = 0 or
 1; and m = 0 or 1. Thus, 17.3 parts 3-aminobenzenesulfonic acid and 18.8
 parts 2,4-diaminobenzenesulfonic acid were coupled, 200 parts 28% aqueous
 ammonia and 125 parts copper sulfate pentahydrate were added therein and
 triazotized at 80° for 5 h, 7.0 parts of the resulting triazo
 compound was mixed with 32 parts 35% hydrochloric acid and 6.9 parts sodium
 nitrite, stirred at 25-30° for 2 h, 10.9 parts 3-methylaniline was
 added therein and stirred, and adjusted at pH 3 to give a monoazo compound,
 32 parts 35% hydrochloric acid and 6.9 parts sodium nitrite were added
 therein and stirred, 12.1 parts 2,5-dimethylaniline was added therein and
 stirred to give a disazo compound, which was diazotized and coupled with

6-(4'-aminobenzoyl)amino-3-sulfo-2-naphthol, and sodium chloride was added therein to give a trisazo compound sodium salt with λ_{max} 547 nm, 0.03% of which was mixed with 0.1% natural sodium sulfate in water, a polyvinyl alc. substrate was soaked therein, stretched 5-folds in 3% aqueous boric acid solution, washed, and dried to give a polarizing film with λ_{max} 550 nm and polarizing ratio 99.9%.

IT 782474-73-1P 782474-75-3P 782474-77-5P
 782474-79-7P 782474-80-OP 782474-81-1P
 782474-82-2P 782474-83-3DP, copper complexes
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)
 (preparation of azo compds. and their salts useful for polarizers with good durability and reduced color leakage in visible light region)

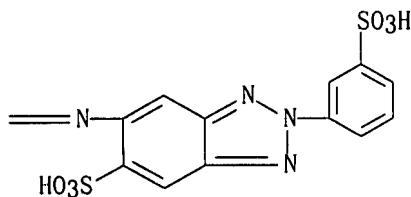
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PAGE 1-A



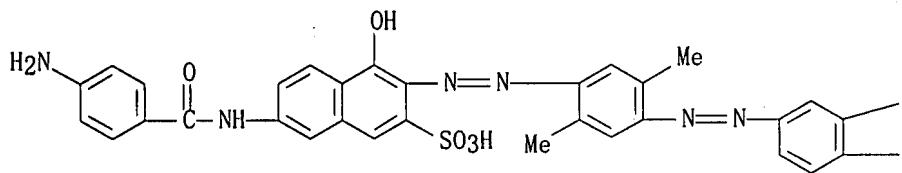
●3 Na

PAGE 1-B



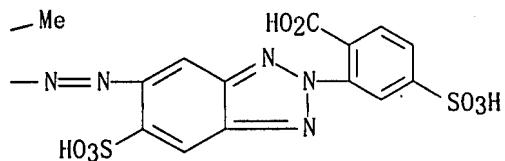
RN 782474-75-3 CAPLUS
 CN Benzoic acid, 2-[5-[[4-[[4-[[6-[(4-aminobenzoyl)amino]-1-hydroxy-3-sulfo-2-naphthalenyl]azo]-2,5-dimethylphenyl]azo]-2-methylphenyl]azo]-6-sulfo-2H-benzotriazol-2-yl]-4-sulfo-, tetrasodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



●4 Na

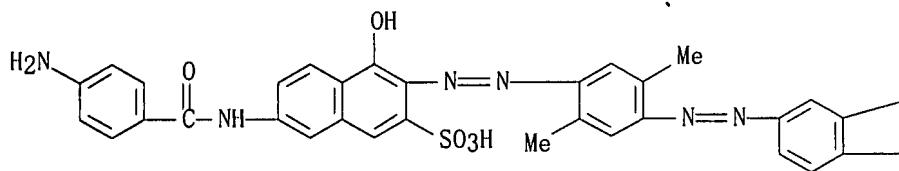
PAGE 1-B



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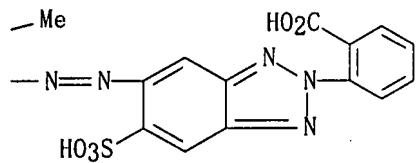
CN Benzoic acid, 2-[5-[[4-[[6-[(4-aminobenzoyl)amino]-1-hydroxy-3-sulfo-2-naphthalenyl]azo]-2,5-dimethylphenyl]azo]-2-methylphenyl]azo]-6-sulfo-2H-benzotriazol-2-yl]-, trisodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



●3 Na

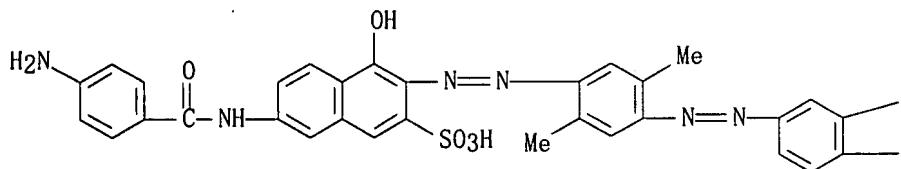
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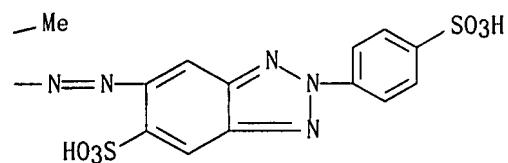
CN 2H-Benzotriazole-5-sulfonic acid, 6-[[4-[[4-[[6-((4-aminobenzoyl)amino)-1-hydroxy-3-sulfo-2-naphthalenyl]azo]-2,5-dimethylphenyl]azo]-2-methylphenyl]azo]-2-(4-sulfophenyl)-, trisodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



●3 Na

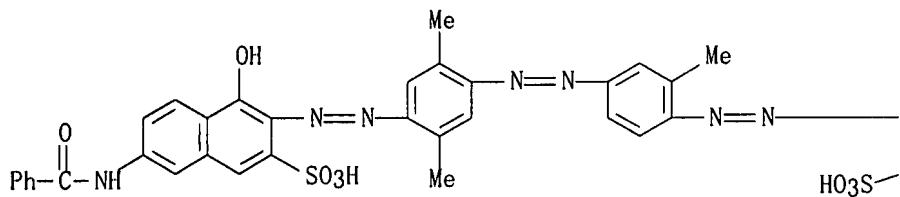
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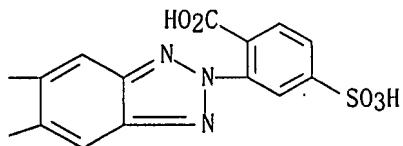
CN Benzoic acid, 2-[5-[[4-[[4-[[6-(benzoylamino)-1-hydroxy-3-sulfo-2-naphthalenyl]azo]-2,5-dimethylphenyl]azo]-2-methylphenyl]azo]-6-sulfo-2H-benzotriazol-2-yl]-4-sulfo-, tetrasodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



●4 Na

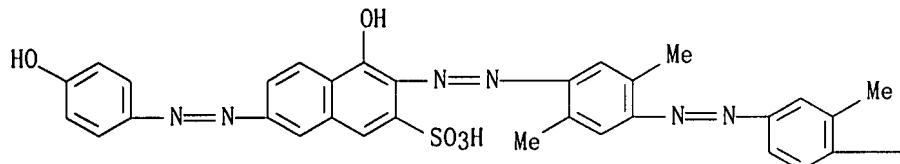
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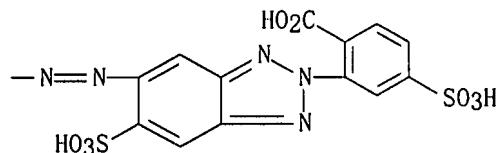
CN Benzoic acid, 2-[5-[[4-[[1-hydroxy-6-[(4-hydroxyphenyl)azo]-3-sulfo-2-naphthalenyl]azo]-2,5-dimethylphenyl]azo]-2-methylphenyl]azo]-6-sulfo-2H-benzotriazol-2-yl]-4-sulfo-, tetrasodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



●4 Na

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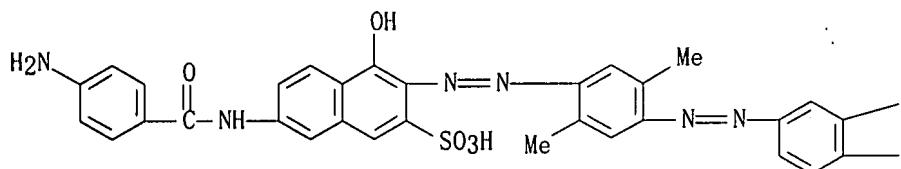


RN 782474-82-2 CAPLUS

CN Benzoic acid, 2-[5-[[4-[[4-[(4-aminobenzoyl)amino]-1-hydroxy-3-sulfo-2-naphthalenyl]azo]-2,5-dimethylphenyl]azo]-2-methylphenyl]azo]-6-methyl-2H-

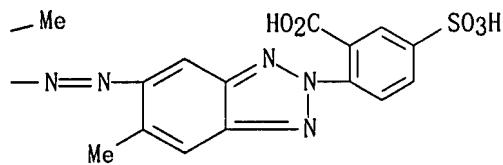
benzotriazol-2-yl]-5-sulfo-, trisodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



●3 Na

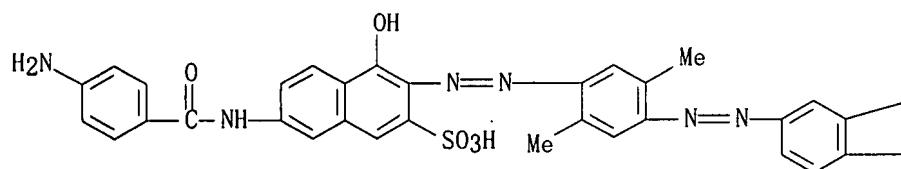
PAGE 1-B



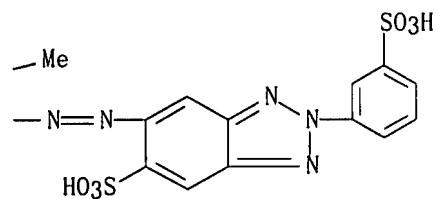
RN 782474-83-3 CAPLUS

CN 2H-Benzotriazole-5-sulfonic acid, 6-[[4-[[4-[[6-[(4-aminobenzoyl)amino]-1-hydroxy-3-sulfo-2-naphthalenyl]azo]-2,5-dimethylphenyl]azo]-2-methylphenyl]azo]-2-(3-sulfophenyl)- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IT 782474-72-0P

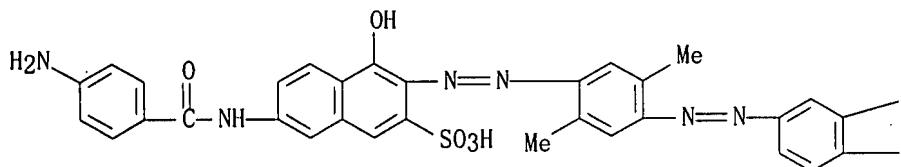
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(preparation of azo compds. and their salts useful for polarizers with good durability and reduced color leakage in visible light region)

RN 782474-72-0 CAPLUS

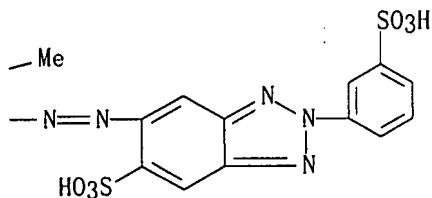
CN 2H-Benzotriazole-5-sulfonic acid, 6-[[4-[[4-[[6-[(4-aminobenzoyl)amino]-1-hydroxy-3-sulfo-2-naphthalenyl]azo]-2,5-dimethylphenyl]azo]-2-methylphenyl]azo]-2-(3-sulfophenyl)-, trisodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



●3 Na

PAGE 1-B



RE. CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L8      5 SEA FILE=CAPLUS ABB=ON  PLU=ON  L7 AND AZO
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=> d 1-5 bib abs
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L8 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2007 ACS on STN
 AN 2006:512627 CAPLUS
 DN 145:9678

TI Azo compounds and dye-type polarizing films or plates containing
 the same

IN Sadamitsu, Yuichi

PA Nippon Kayaku Kabushiki Kaisha, Japan; Polatechno Co., Ltd.

SO PCT Int. Appl., 28 pp.

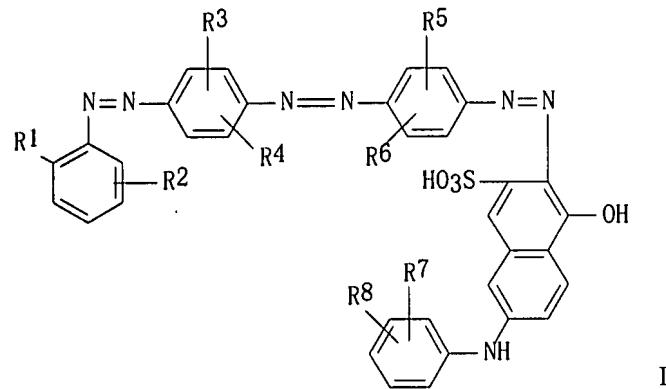
CODEN: PIIXD2

DT Patent

LA Japanese

FAN. CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2006057214	A1	20060601	WO 2005-JP21355	20051121
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
PRAI	JP 2004-338876	A	20041124		
OS	MARPAT	145:9678			
GI					



AB Azo compds. whose free acid forms are represented by the general formula I (R1 = SO₂, COOH, lower alkoxy group; R2 = SO₂, COOH, lower alkyl, lower alkoxy; with a proviso that both R1 and R2 are not SO₂ at the same time; R3-6 = H, lower alkyl, lower alkoxy; R7, R8 = H, amino, OH, SO₂, COOH group) are extremely useful as the dichroic dye for polarizing plates which are excellent in polarization performance and endurance and reduced in the color cross-talk within the visible light region or in polarizers for liquid crystal projectors made by using them.

RE. CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2007 ACS on STN
 AN 2005:1004846 CAPLUS
 DN 143:307328
 TI Water-based polyvinyl alcohol-containing adhesives for polarizing elements
 and polarizers
 IN Kawabe, Kazuyuki
 PA Nippon Kayaku Kabushiki Kaisha, Japan; Polatechno Co., Ltd.
 SO PCT Int. Appl., 22 pp.
 CODEN: PIXXD2
 DT Patent
 LA Japanese
 FAN. CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2005085383	A1	20050915	WO 2005-JP3633	20050303
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	EP 1721951	A1	20061115	EP 2005-719937	20050303
	R: CH, DE, FR, GB, LI, NL				
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	JP 2004-59254	A	20040303		
	WO 2005-JP3633	W	20050303		

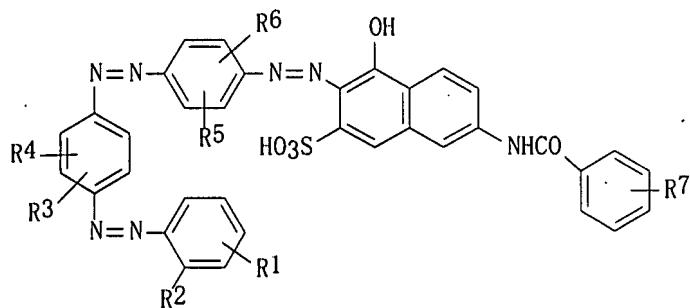
AB Title adhesives for polarizing elements and polarizers, which have sufficient adhesion strength at high temperature and humidity, is composed of polyvinyl alc. 100, a resin having a maleic anhydride skeleton in the structure, such as isobutylene-maleic anhydride copolymer, 1-1000, and an epoxy group-containing crosslinking agent, 0.5-5,000. Polarizers composed of polyvinyl alc. polarizing elements and a protective film, such as cellulose acetate film, adhering with the above adhesives are also provided. Thus, polyvinyl alc., isobutene-maleic anhydride copolymer (Isobam 18), and polyglucose polyglycidyl ether (Denacol EX 521) were mixed to receive an adhesive composition, which was used to adhere a polarizing element prepared from dyeing a polyvinyl alc. film with an azo dye and stretching, with a cellulose triacetate film to receive a polarizer.

RE. CNT 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2007 ACS on STN
 AN 2005:823777 CAPLUS
 DN 143:231358
 TI Azo compounds for polarizing films and polarizing plates with
 good polarizing performance and durability, and reduced in color leakage in
 visible light region
 IN Sadamitsu, Yuichi
 PA Nippon Kayaku Kabushiki Kaisha, Japan; Polatechno Co., Ltd.
 SO PCT Int. Appl., 29 pp.
 CODEN: PIXXD2
 DT Patent
 LA Japanese
 FAN. CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2005075572	A1	20050818	WO 2005-JP1412	20050201
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CA 2553415	A1	20050818	CA 2005-2553415	20050201
EP 1712595	A1	20061018	EP 2005-709558	20050201
R: DE, FR, GB, NL				
CN 1914283	A	20070214	CN 2005-80004049	20050201
PRAI JP 2004-27942	A	20040204		
WO 2005-JP1412	W	20050201		

GI



I

AB The present invention relates to azo compds. I as a dichroic dye
 for polarizing films and polarizing plates, wherein R1, R2 = sulfo,
 carboxy, lower alkyl, or lower alkoxy; R3 = lower alkyl, lower alkoxy, or
 acetylamino; R4, R5, R6 = H, lower alkyl, lower alkoxy, or acetylamino;
 and R7 = H, amino, or hydroxy. Thus, 20.3 parts 2-amino-5-
 methoxybenzenesulfonic acid was dissolved in 500 parts water, sodium
 hydroxide was added therein and dissolved, 32 parts 35% hydrochloric acid
 and 6.9 parts sodium nitrite were added therein and stirred at
 5-10° for 1 h, 10.7 parts 3-methylaniline was added therein and
 stirred at 30-40°, adjusted at pH 3, 32 parts 35% hydrochloride and
 6.9 parts sodium nitrite were added therein and stirred at 25-30°
 for 2 h, 12.1 parts 2,5-dimethylaniline was added therein and stirred at
 20-30°, adjusted pH at 3 and stirred to give a disazo dye, 15 parts
 of which was diazotized and reacted with 35.8 parts 6-(4'-
 nitrophenyl)benzene-1,4-diamine.

aminobenzoyl)amino-3-sulfonic acid-1-naphthol to give a trisazo compound, 0.03% of the resulting trisazo compound and 0.1% sodium sulfate was dissolved in water, a polyvinyl alc. film was soaked in the resulting solution for 4 min, stretched 5-folds in an aqueous boric acid solution, washed, and dried to give a polarizing film, showing λ_{max} 555 nm, polarizing rate 99.9%, and polarizing rate change ratio 0.25%.

RE. CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2007 ACS on STN
 AN 2004:905838 CAPLUS

DN 141:381068

TI Azo compounds and their salts useful for polarizers with good durability and reduced color leakage in visible light region

IN Sadamitsu, Yuichi; Kawabe, Kazuyuki

PA Nippon Kayaku Kabushiki Kaisha, Japan; Polatechno Co., Ltd.

SO PCT Int. Appl., 35 pp.

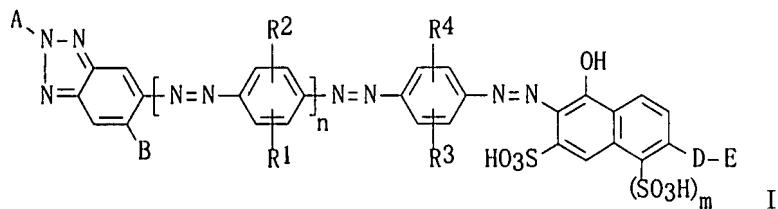
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DT Patent

LA Japanese

FAN. CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004092282	A1	20041028	WO 2004-JP5364	20040415
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	EP 1614719	A1	20060111	EP 2004-727708	20040415
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR				
	CN 1774480	A	20060517	CN 2004-80010078	20040415
	US 2007079740	A1	20070412	US 2005-552184	20051006
PRAI	JP 2003-111419	A	20030416		
	WO 2004-JP5364	W	20040415		
OS	MARPAT 141:381068				
GI					



AB The present invention relates to (i) azo compds. I and (ii) their salts or their copper complex compds., wherein A = Ph or naphthyl having 1-3 substituents such as sulfo, amino, lower alkyl, and lower alkoxy; B = H, sulfo, lower alkyl, or lower alkoxy; R1, R2, R3, R4 = independently H, halogeno, lower alkyl, or lower alkoxy; D = NHCO, N:N, or NH; E = H or Ph having 1-3 substituents such as lower alkyl, hydroxy, and amino; n = 0 or 1; and m = 0 or 1. Thus, 17.3 parts 3-aminobenzenesulfonic acid and 18.8 parts 2,4-diaminobenzenesulfonic acid were coupled, 200 parts 28% aqueous ammonia and 125 parts copper sulfate pentahydrate were added therein and triazotized at 80° for 5 h, 7.0 parts of the resulting triazo compound was mixed with 32 parts 35% hydrochloric acid and 6.9 parts sodium nitrite, stirred at 25-30° for 2 h, 10.9 parts 3-methylaniline was added therein and stirred, and adjusted at pH 3 to give a monoazo compound, 32 parts 35% hydrochloric acid and 6.9 parts sodium nitrite were added therein and stirred, 12.1 parts 2,5-dimethylaniline was added therein and stirred to give a disazo compound, which was diazotized and coupled with 6-(4'-aminobenzoyl)amino-3-sulfo-2-naphthol, and sodium chloride was added therein to give a trisazo compound

sodium salt with λ_{max} 547 nm, 0.03% of which was mixed with 0.1% natural sodium sulfate in water, a polyvinyl alc. substrate was soaked therein, stretched 5-folds in 3% aqueous boric acid solution, washed, and dried to give a polarizing film with λ_{max} 550 nm and polarizing ratio 99.9%.

RE. CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2003:582990 CAPLUS
DN 139:150704
TI Fabrication of polarizing films containing bisazo dyes for polarizing plates used in liquid crystal projector blue channel
IN Oiso, Shoji; Tabei, Toru; Kawabe, Kazuyuki; Sadamitsu, Yuichi
PA Nippon Kayaku Co., Ltd., Japan; Polatechno Co., Ltd.
SO Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN. CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003215338	A	20030730	JP 2002-12302	20020122
PRAI	JP 2002-12302		20020122		

AB The title films contain at least one bisazo type water-soluble dye, C. I. Direct Yellow 28, and C. I. Direct Orange 39 in substrate materials such as poly(vinyl alc.), and the polarizing plates are fabricated by covering one or both sides of the polarizing film with protective films. Thus, reacting 29.9 parts 4-aminoazobenzene-4'-sulfonic acid sodium salt with 31.5 parts 6-phenylamino-1-hydroxynaphthalene-3-sulfonic acid in the presence of HCl and sodium nitrite gave a bisazo water-soluble dye, 0.03% of which was mixed with 0.01% C. I. Direct Yellow 28, 0.05% C. I. Direct Orange 39 and 0.1% Glauber's salt to give an aqueous solution, which was then used for impregnating a poly(vinyl alc.) film for 4 min at 45° to give a polarizing film after the workup.

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(FILE 'HOME' ENTERED AT 14:06:55 ON 18 JUL 2007)

FILE 'REGISTRY' ENTERED AT 14:07:15 ON 18 JUL 2007

L1 STRUCTURE UPLOADED

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L2 3 SEA SSS SAM L1

L3 16 SEA SSS FUL L1

FILE 'CAPLUS' ENTERED AT 14:08:05 ON 18 JUL 2007

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D QUE L4 STAT

D BIB ABS HITSTR

E SADAMITSU YUICHI/AU

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E KAWABE KAZUYUKI/AU

L6 15 SEA ABB=ON PLU=ON "KAWABE KAZUYUKI"/AU

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L8 5 SEA ABB=ON PLU=ON L7 AND AZO

D QUE L8 STAT

D 1-5 BIB ABS

FILE HOME

FILE REGISTRY

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 17 JUL 2007 HIGHEST RN 942577-08-4

DICTIONARY FILE UPDATES: 17 JUL 2007 HIGHEST RN 942577-08-4

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<http://www.cas.org/support/stngen/stndoc/properties.html>

FILE CAPLUS

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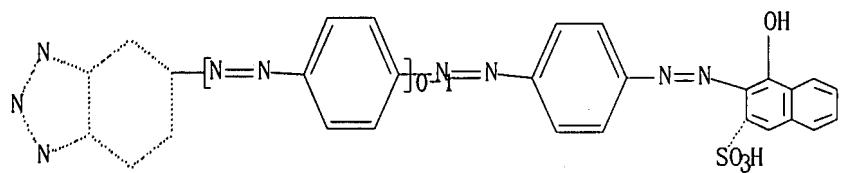
FILE COVERS 1907 - 18 Jul 2007 VOL 147 ISS 4

FILE LAST UPDATED: 17 Jul 2007 (20070717/ED)

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<http://www.cas.org/infopolicy.html>

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L9 STR



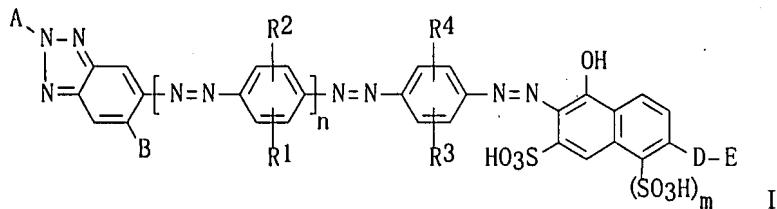
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L12 2 SEA FILE=CAPLUS ABB=ON PLU=ON L11

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L12 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN
 AN 2004:905838 CAPLUS
 DN 141:381068
 TI Azo compounds and their salts useful for polarizers with good durability
 and reduced color leakage in visible light region
 IN Sadamitsu, Yuichi; Kawabe, Kazuyuki
 PA Nippon Kayaku Kabushiki Kaisha, Japan; Polatechno Co., Ltd.
 SO PCT Int. Appl., 35 pp.
 CODEN: PIXXD2
 DT Patent
 LA Japanese
 FAN. CNT 1

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	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR				
	CN 1774480	A	20060517	CN 2004-80010078	20040415
	US 2007079740	A1	20070412	US 2005-552184	20051006
PRAI	JP 2003-111419	A	20030416		
	WO 2004-JP5364	W	20040415		
OS	MARPAT	141:381068			
GI					



AB The present invention relates to (i) azo compds. I and (ii) their salts or their copper complex compds., wherein A = Ph or naphthyl having 1-3 substituents such as sulfo, amino, lower alkyl, and lower alkoxy; B = H, sulfo, lower alkyl, or lower alkoxy; R1, R2, R3, R4 = independently H, halogeno, lower alkyl, or lower alkoxy; D = NHCO, N:N, or NH; E = H or Ph having 1-3 substituents such as lower alkyl, hydroxy, and amino; n = 0 or 1; and m = 0 or 1. Thus, 17.3 parts 3-aminobenzenesulfonic acid and 18.8 parts 2,4-diaminobenzenesulfonic acid were coupled, 200 parts 28% aqueous ammonia and 125 parts copper sulfate pentahydrate were added therein and triazotized at 80° for 5 h. 7.0 parts of the resulting triazo compound was mixed with 32 parts 35% hydrochloric acid and 6.9 parts sodium nitrite, stirred at 25-30° for 2 h, 10.9 parts 3-methylaniline was added therein and stirred, and adjusted at pH 3 to give a monoazo compound, 32 parts 35% hydrochloric acid and 6.9 parts sodium nitrite were added therein and stirred, 12.1 parts 2,5-dimethylaniline was added therein and stirred to give a disazo compound, which was diazotized and coupled with 6-(4'-aminobenzoyl)amino-3-sulfo-2-naphthol, and sodium chloride was added therein to give a trisazo compound sodium salt with λ_{max} 547 nm,

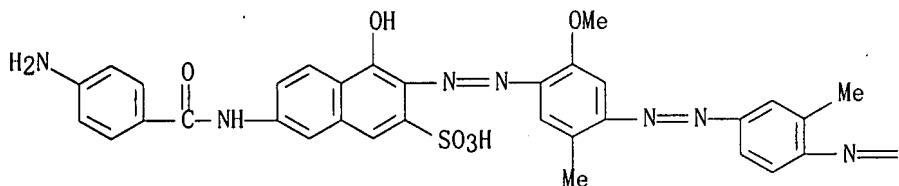
0.03% of which was mixed with 0.1% natural sodium sulfate in water, a polyvinyl alc. substrate was soaked therein, stretched 5-folds in 3% aqueous boric acid solution, washed, and dried to give a polarizing film with λ_{max} 550 nm and polarizing ratio 99.9%.

IT 782474-73-1P 782474-75-3P 782474-77-5P
 782474-79-7P 782474-80-0P 782474-81-1P
 782474-82-2P 782474-83-3DP, copper complexes
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)
 (preparation of azo compds. and their salts useful for polarizers with good durability and reduced color leakage in visible light region)

RN 782474-73-1 CAPLUS

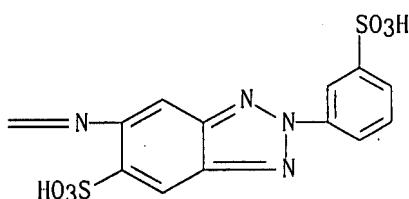
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PAGE 1-A



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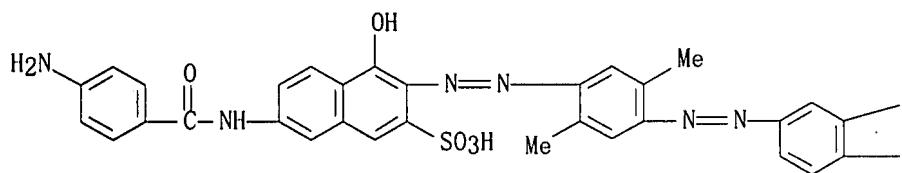
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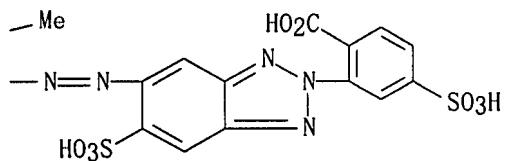
CN Benzoic acid, 2-[5-[[4-[[4-[[6-[(4-aminobenzoyl)amino]-1-hydroxy-3-sulfo-2-naphthalenyl]azo]-2,5-dimethylphenyl]azo]-2-methylphenyl]azo]-6-sulfo-2H-benzotriazol-2-yl]-4-sulfo-, tetrasodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



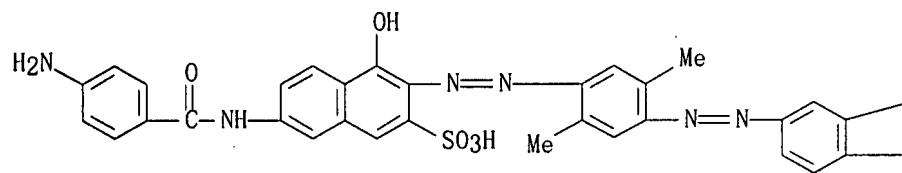
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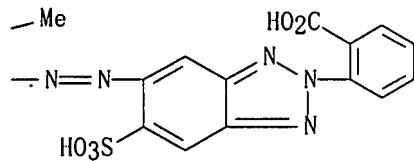
RN 782474-77-5 CAPLUS
 CN Benzoic acid, 2-[5-[[4-[[6-[(4-aminobenzoyl)amino]-1-hydroxy-3-sulfo-2-naphthalenyl]azo]-2,5-dimethylphenyl]azo]-2-methylphenyl]azo]-6-sulfo-2H-benzotriazol-2-yl]-, trisodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



●3 Na

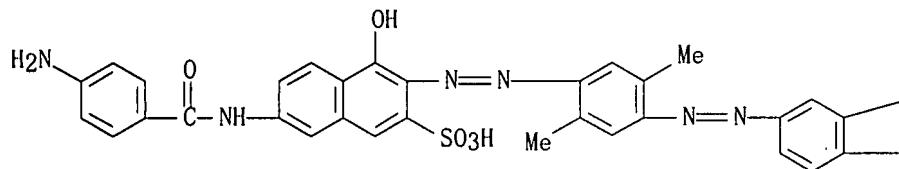
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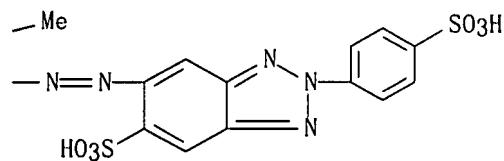
CN 2H-Benzotriazole-5-sulfonic acid, 6-[[4-[[4-[[6-[(4-aminobenzoyl)amino]-1-hydroxy-3-sulfo-2-naphthalenyl]azo]-2,5-dimethylphenyl]azo]-2-methylphenyl]azo]-2-(4-sulfophenyl)-, trisodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



●3 Na

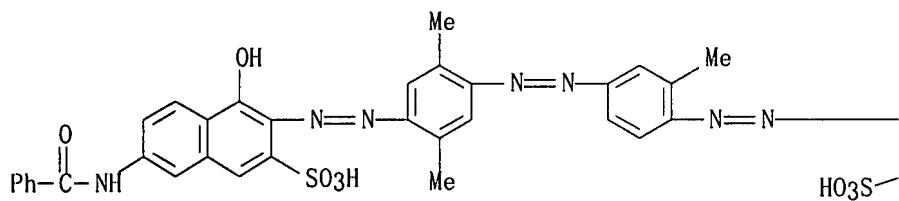
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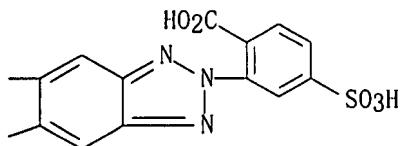
CN Benzoic acid, 2-[5-[[4-[[4-[[6-(benzoylamino)-1-hydroxy-3-sulfo-2-naphthalenyl]azo]-2,5-dimethylphenyl]azo]-2-methylphenyl]azo]-6-sulfo-2H-benzotriazol-2-yl]-4-sulfo-, tetrasodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



●4 Na

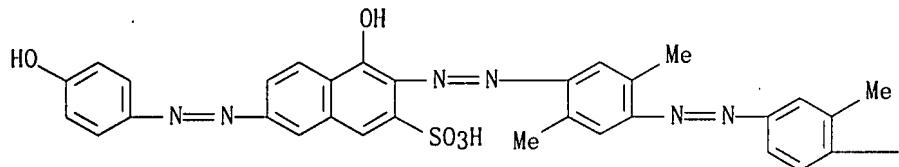
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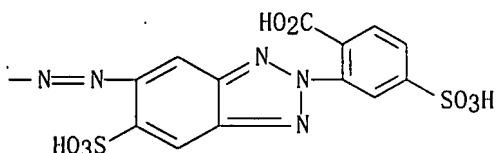
CN Benzoic acid, 2-[5-[[4-[[1-hydroxy-6-[(4-hydroxyphenyl)azo]-3-sulfo-2-naphthalenyl]azo]-2,5-dimethylphenyl]azo]-2-methylphenyl]azo]-6-sulfo-2H-benzotriazol-2-yl]-4-sulfo-, tetrasodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



●4 Na

PAGE 1-B

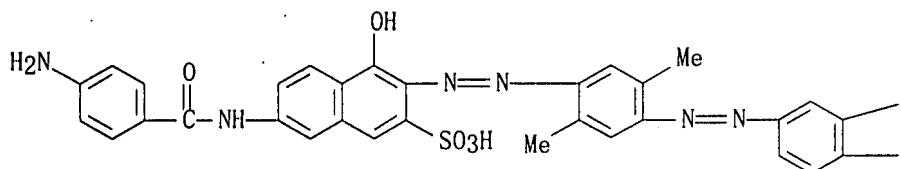


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CN Benzoic acid, 2-[5-[[4-[[4-[(4-aminobenzoyl)amino]-1-hydroxy-3-sulfo-2-naphthalenyl]azo]-2,5-dimethylphenyl]azo]-2-methylphenyl]azo]-6-methyl-2H-

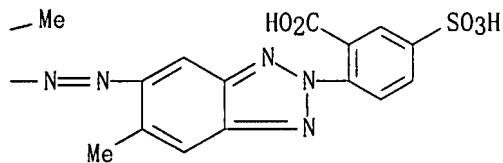
benzotriazol-2-yl]-5-sulfo-, trisodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



●3 Na

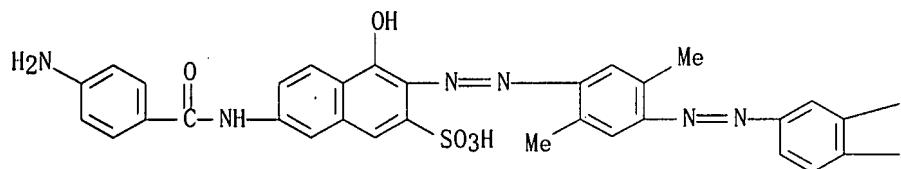
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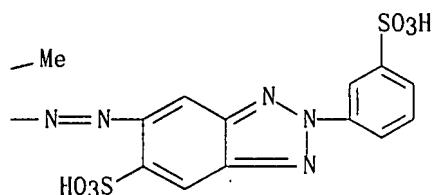
RN 782474-83-3 CAPLUS

CN 2H-Benzotriazole-5-sulfonic acid, 6-[[4-[[4-[[6-[(4-aminobenzoyl)amino]-1-hydroxy-3-sulfo-2-naphthalenyl]azo]-2,5-dimethylphenyl]azo]-2-methylphenyl]azo]-2-(3-sulfophenyl)- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IT 782474-72-0P

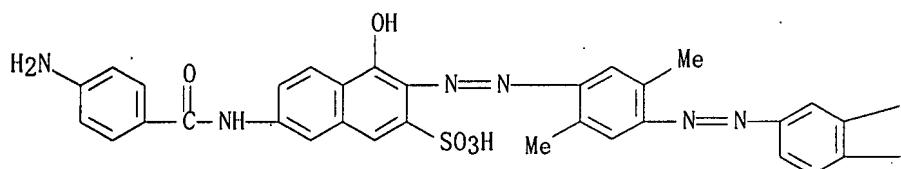
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(preparation of azo compds. and their salts useful for polarizers with good durability and reduced color leakage in visible light region)

RN 782474-72-0 CAPLUS

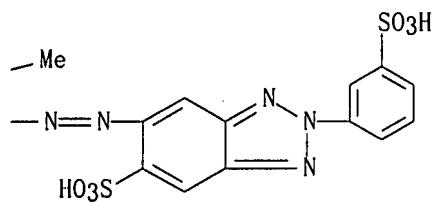
CN 2H-Benzotriazole-5-sulfonic acid, 6-[[4-[[4-[[6-[(4-aminobenzoyl)amino]-1-hydroxy-3-sulfo-2-naphthalenyl]azo]-2,5-dimethylphenyl]azo]-2-methylphenyl]azo]-2-(3-sulfophenyl)-, trisodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



●3 Na

PAGE 1-B



RE. CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1959:20196 CAPLUS

DN 53:20196

OREF 53:3713a-d

TI Polyazo dyes

IN Hanhart, Walter

PA C I B A Ltd.

DT Patent

LA Unavailable

FAN. CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	CH 326553		19580215	CH	
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AB Gray to black shades on cotton are obtained with coppered dyes with the general formula $RN = NR'N = NR''N = NR'''$, in which R is a heterocyclic, 5-membered ring containing at least 2 hetero atoms of which one is N, R' and R'' are aromatic rings linked with azo groups in the 1- and 4-positions, R''' contains an alkoxy group in ortho position to $N2R'''$, and R''' is a hydroxynaphthalene ring with the azo bond in ortho position to the OH group. Thus, 28.2 parts dye, made by coupling diazotized 6-aminobenzotriazole (I) with 1-amino-2-methoxy-5-methylbenzene (II), is diazotized and coupled with 1-amino-2,5-dimethoxybenzene (III) 15.3 in the presence of NaOAc. The filtered disazo dye is dissolved in dilute NaOH, diazotized several hrs. at room temperature by addition of NaNO₂ 8 and naphthalene-1-sulfonic acid, the diazo compound is salted out and coupled with 2-amino-8-hydroxynaphthalene-6-sulfonic acid (IV) 23.9 in the presence of a little pyridine. The product, after coppering, dyes cotton black shades, fast to washing and light. The dye, prepared from diazotized I and PhNH₂·H₃SO₃Me, is diazotized and coupled with 2,5-(MeO)₂C₆H₃NH₂. The product is treated with NaNO₂ and 1-naphthalenesulfonic acid and after several hrs. added to the solution of IV to give a similar black dye, which after coppering is wash- and light-fast. In cases where coupling of II and (or) III is slow, the corresponding methanesulfonic acid facilitates coupling, after which this group is removed.

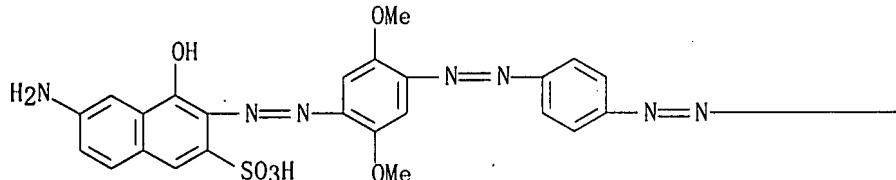
IT 117100-39-7P, 1-Naphthol-3-sulfonic acid, 7-amino-2-[4-[p-(benzotriazol-5-ylazo)phenylazo]-2,5-dimethoxyphenylazo]-
121848-15-5P, 1-Naphthol-3-sulfonic acid, 7-amino-2-[4-[4-(benzotriazol-5-ylazo)-6-methoxy-m-tolylazo]-2,5-dimethoxyphenylazo]-

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(preparation of)

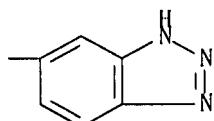
RN 117100-39-7 CAPLUS

CN 1-Naphthol-3-sulfonic acid, 7-amino-2-[4-[p-(benzotriazol-5-ylazo)phenylazo]-2,5-dimethoxyphenylazo]- (6CI) (CA INDEX NAME)

PAGE 1-A



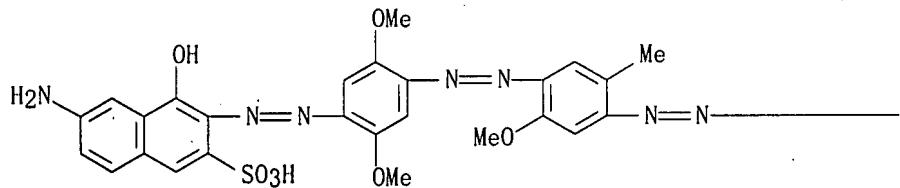
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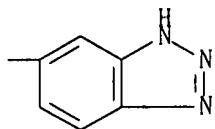
RN 121848-15-5 CAPLUS

CN 1-Naphthol-3-sulfonic acid, 7-amino-2-[4-[4-(benzotriazol-5-ylazo)-6-methoxy-m-tolylazo]-2,5-dimethoxyphenylazo]- (6CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



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L6 15 SEA ABB=ON PLU=ON "KAWABE KAZUYUKI"/AU

L7 19 SEA ABB=ON PLU=ON L5 OR L6

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D QUE L8 STAT

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L12 2 SEA ABB=ON PLU=ON L11

D QUE L12 STAT

D 1-2 BIB ABS HITSTR

FILE HOME

FILE REGISTRY

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 17 JUL 2007 HIGHEST RN 942577-08-4

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